

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions or listings of claims for this application.

### Listing of Claims:

1. (Currently amended) A computerized method for analyzing a plurality of amino acids in a fluid sample by a user, comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L  
~~up to~~ until approximately a time ~~before~~ when  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted;  
and

displaying said analysis for said user.

2. (Original) The computerized method of claim 1 further comprising setting a pH to no more than 3.5 for said buffer solution up to a time before said  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted.

3. (Original) The computerized method of claim 1 further comprising setting said lithium ion concentration and a pH in said buffer solution to increase in a gradient fashion within a time of eluting from  $\gamma$ -amino-n-butyric acid ( $\gamma$ -ABA) to hydroxylysine (Hyls).

4. (Currently amended) ~~The computerized method of claim 3 further comprising~~A computerized method for analyzing a plurality of amino acids in a fluid sample by a user, comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted;

setting said lithium ion concentration and a pH in said buffer solution to increase in a gradient fashion within a time of eluting from  $\gamma$ -amino-n-butyric acid ( $\gamma$ -ABA) to hydroxylysine (Hylys);

setting said lithium ion concentration to increase from 0.44 mols/L to 1.00 mol/L and said pH to increase from 3.66 to 4.1 in said buffer solution; and

displaying said analysis for said user.

5. (Currently amended) ~~The computerized method of claim 1 further comprising~~A computerized method for analyzing a plurality of amino acids in a fluid sample by a user, comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L  
up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted;

setting said lithium ion concentration at 0.81 mols/L and a pH at 4.00 in said  
buffer solution within an elution time from hydroxylysine (Hylys) to histidine (His); and

displaying said analysis for said user.

6. (Original) The computerized method of claim 5 further comprising setting  
the lithium ion concentration at 1.00 mol/L and said pH at 4.1 in said buffer solution  
after the elution of histidine (His).

7. (Currently amended) ~~The computerized method of claim 1 further~~  
~~comprising~~ A computerized method for analyzing a plurality of amino acids in a fluid  
sample by a user, comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L  
up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted;

setting a column temperature at 70°C within an elution time from valine (val) to  
homocitrulline (Hcit); and

displaying said analysis for said user.

8. (Currently amended) ~~The computerized method of claim 1 further comprising~~ A computerized method for analyzing a plurality of amino acids in a fluid sample by a user, comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted;

setting a column temperature at 70°C within an elution time of tyrosine (Tyr);  
and

displaying said analysis for said user.

9. (Currently amended) ~~The computerized method of claim 1 further comprising~~ A computerized method for analyzing a plurality of amino acids in a fluid sample by a user, comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted;

setting a column temperature at 63°C within an elution time of from cysteine-homocysteine mixed disulfides (Cys-Hcys) to tryptophane (Trp); and

displaying said analysis for said user.

10. (Currently amended) The computerized method of claim 1 wherein said ~~pluarlity~~plurality of amino acids is selected from the group comprising: phosphoserine (P-Ser), taurine (Tau), phosphoethanolamine (PEA), urea (Urea), aspartic acid (Asp), hydroxyproline (Hypro), methionine sulfoxide (MetSOX), threonine (Thr), Serine (Ser), asparagine (AspNH<sub>2</sub>), glutamic acid (Glu), glutamine (GluNH<sub>2</sub>), Sarcosine (Sar),  $\alpha$ -aminoadipic acid ( $\alpha$ -AAA), proline (pro), glycine (Gly), alanine (Ala), citrulline (Cit),  $\alpha$ -amino-n-butyric acid ( $\alpha$ -ABA), valine (Val), pipecolic acid (Pipeco), homocysteine (HCysH), methionine (Met), homocitrulline (HCit), allo-isoleucine (Allo-Ile), cystine (Cys), saccharopin (Saccha), isoleucine (Ile), leucine (Leu), tyrosine (Tyr), cystathionine (Cysthi), phenylalanine (Phe), allgininosuccinic acid (ASA), cysteine-homocysteine mixed disulfides (Cys-Hcys),  $\beta$ -alanine ( $\beta$ -Ala), aminolevulinic acid (ALevA),  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA),  $\gamma$ -amino-n-butyric acid ( $\gamma$ -ABA), homocystine (HCys), alugininosuccinic acid anhydride 1 (ASA-Anhy1), ethanolamine (EOHNH<sub>2</sub>), tryptophan (Trp), ammonia (NH<sub>3</sub>), hydroxylysine (Hylys), aminoethylcysteine (AEC), ornithine (Orn), lysine (Lys), 1-methylhistidine (1Mehis), histidine (His), 3-methylhistidine (3Mehis), anserine (Ans), carnosine (Car) and arginine (Arg).

Claims 11-20 (Canceled).

21. (Currently amended) A method for analyzing a plurality of amino acids in a fluid sample comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column; and

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L ~~up to~~ until approximately a time before when  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted.

22. (Original) The method of claim 21 further comprising setting a pH to no more than 3.5 for said buffer solution up to a time before said  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted.

23. (Original) The method of claim 21 further comprising setting said lithium ion concentration and a pH in said buffer solution to increase in a gradient fashion within a time of eluting from  $\gamma$ -amino-n-butyric acid ( $\gamma$ -ABA) to hydroxylysine (Hyllys).

24. (Currently amended) ~~The method of claim 23 further comprising~~ A method for analyzing a plurality of amino acids in a fluid sample comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted;

setting said lithium ion concentration and a pH in said buffer solution to increase in a gradient fashion within a time of eluting from  $\gamma$ -amino-n-butyric acid ( $\gamma$ -ABA) to hydroxylysine (Hyllys); and

setting said lithium ion concentration to increase from 0.44 mols/L to 1.00 mol/L and said pH to increase from 3.66 to 4.1 in said buffer solution.

25. (Currently amended) ~~The method of claim 21 further comprising~~  
A method for analyzing a plurality of amino acids in a fluid sample comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted; and

setting said lithium ion concentration at 0.81 mols/L and a pH at 4.00 in said buffer solution within an elution time from hydroxylysine (Hyllys) to histidine (His).

26. (Original) The method of claim 25 further comprising setting the lithium ion concentration at 1.00 mol/L and said pH at 4.1 in said buffer solution after the elution of histidine (His).

27. (Currently amended) ~~The method of claim 21 further comprising~~  
A method for analyzing a plurality of amino acids in a fluid sample comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L  
up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted; and

setting a column temperature at 70°C within an elution time from valine (val) to  
homocitrulline (Hcit).

28. (Currently amended) ~~The method of claim 21 further comprising~~ A method  
for analyzing a plurality of amino acids in a fluid sample comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L  
up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted; and

setting a column temperature at 70°C within an elution time of tyrosine (Tyr).

29. (Currently amended) ~~The method of claim 21 further comprising~~ A method  
for analyzing a plurality of amino acids in a fluid sample comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;



setting a lithium ion concentration in said buffer to no more than 0.3 mols/L up to a time before  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted; and

setting a column temperature at 63°C within an elution time of from cysteine-homocysteine mixed disulfides (Cys-Hcys) to tryptophane (Trp).

30. (Currently amended) The method of claim 21 wherein said ~~plurality~~plurality of amino acids is selected from the group comprising: phosphoserine (P-Ser), taurine (Tau), phosphoethanolamine (PEA), urea (Urea), aspartic acid (Asp), hydroxyproline (Hypro), methionine sulfoxide (MetSOX), threonine (Thr), Serine (Ser), asparagine (AspNH<sub>2</sub>), glutamic acid (Glu), glutamine (GluNH<sub>2</sub>), Sarcosine (Sar),  $\alpha$ -amino adipic acid ( $\alpha$ -AAA), proline (Pro), glycine (Gly), alanine (Ala), citrulline (Cit),  $\alpha$ -amino-n-butyric acid ( $\alpha$ -ABA), valine (Val), pipecolic acid (Pipeco), homocysteine (HCysH), methionine (Met), homocitrulline (HCit), allo-isoleucine (Allo-Ile), cystine (Cys), saccharopin (Saccha), isoleucine (Ile), leucine (Leu), tyrosine (Tyr), cystathionine (Cysthi), phenylalanine (Phe), allgininosuccinic acid (ASA), cysteine-homocysteine mixed disulfides (Cys-Hcys),  $\beta$ -alanine ( $\beta$ -Ala), aminolevulinic acid (ALevA),  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA),  $\gamma$ -amino-n-butyric acid ( $\gamma$ -ABA), homocystine (HCys), alugininosuccinic acid anhydride 1 (ASA-Anhy1), ethanolamine (EOH NH<sub>2</sub>), tryptophan (Trp), ammonia (NH<sub>3</sub>), hydroxylysine (Hylys), aminoethylcysteine (AEC), ornithine (Orn), lysine (Lys), 1-methylhistidine (1Mehis), histidine (His), 3-methylhistidine (3Mehis), anserine (Ans), carnosine (Car) and arginine (Arg).

31. (Currently amended) A computerized method for analyzing a plurality of amino acids in a fluid sample by a user, comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L  
~~up to~~ until approximately a time ~~before~~ when  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted;  
and

displaying said analysis for said user.

Claim 32 (Canceled).

33. (Currently amended) A method for analyzing a plurality of amino acids in a fluid sample comprising the steps of:

introducing said sample into a buffer solution;

passing said sample in said buffer solution through a separation column;

setting a pH to no more than 3.5 for said buffer solution ~~up to~~ a time before  
said  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted; and

setting a lithium ion concentration in said buffer to no more than 0.3 mols/L  
~~up to~~ until approximately a time ~~before~~ when  $\beta$ -aminoisobutyric acid ( $\beta$ -AiBA) is eluted.